

## ZENNER Displacement Type Magnetic Drive Cold Water Meters with Stealth Solid State Electronic Register

Model PPD

Sizes: 5/8", 3/4", 1", 1-1/2", 2"

**INTRODUCTION:** ZENNER PPD Water Meters with Electronic Registers utilize a magnetically driven, positive displacement, oscillating piston design. It is designed to measure clean potable water where flow is in one direction only in residential, commercial and industrial settings.

**OPERATION:** Water flows through the meter's strainer and into the measuring chamber where it drives the piston. The hydro dynamically balanced piston oscillates around a control roller, guided by a division plate. A drive magnet transmits the motion of the piston to a driven magnet located within the hermetically sealed electronic register. The gearless electronic register translates the piston oscillations into volume totalization which is both displayed on the 9 digit LCD and stored internally on a solid state microprocessor.

**CONSTRUCTION:** ZENNER PPD Water Meters consist of three basic components: main case, measuring chamber and a electronic register. The main cases are constructed using C89833 Brass Alloy. Measuring Chambers are constructed of a durable synthetic polymer. Bottom plates (for meter sizes 5/8" thru 1") are available in Bronze, Cast Iron or synthetic polymer.

**MAINTENANCE:** ZENNER PPD Water Meters with Electronic Registers are engineered and manufactured to provide long-term service and operate virtually maintenance free. The precise simple design allows for part interchangeability which reduces parts inventory. The electronic register assembly may be removed without affecting water pressure or removal of the main case.

**REGISTRATION:** ZENNER PPD Water Meters with Electronic Registers utilize a hermetically sealed magnetically driven solid state register with a 9 digit LCD display. These registers have the following features:

- Sealed design that eliminates dirt, moisture infiltration, and prevents fogging.
- Built-in electronic output capabilities for easy conversion to Automated Meter Reading.
- Power is harvested by converting rotation of the meter magnet into electricity through the self-powered AlwaysOn™ sensor.
- Usage data is stored indefinitely even if the battery of the display or communications module fails or is fully discharged.
- Battery-powered LCD display with 20 year life with visible battery life alarm on display.
- Solid-state, very low power microprocessor with non-volatile memory.
- Magnetically shielded to protect from environmental or intentional magnetic interference.
- Designed for use with a communicating Meter Interface Unit so that a Handheld or a Fixed Network can always access the current register value.

**CONFORMANCE:** ZENNER PPD Water Meters are tested and comply with AWWA C700, AWWA C707 and ISO 4064 performance standards. These Meters comply with the lead-free provisions of the Safe Drinking Water Act and are certified to NSF/ANSI Standards 61 and 372.



**TAMPERPROOF FEATURES:** Customer removal of the register to obtain free water is prevented through the use of a locking device that requires a special tool, only available to water utilities.

**CONNECTIONS:** These meters have been designed with ease of installation in mind through the use of built-in wrench pads on meter sizes 5/8" through 1". Tailpiece/Unions for installations of meters are available as an option for various pipe types, sizes and misaligned pipes. The 1-1/2" PPD09 and 2" PPD12 flanged meters are available with an optional 1" test port.

**DISCLOSURE:** Displacement meters are not recommended for use with fire suppression systems. (See AWWA Standard C700)

MODEL		PPD01	PPD02	PPD03	PPD04	PPD05	PPD07
SIZE		5/8 x 1/2	5/8 x 3/4	3/4" Short	3/4 x 3/4	3/4 x 1	1"
High Flow Rate	USGPM	20	20	30	30	30	50
Continuous Flow	USGPM	10	10	15	15	15	25
Starting Flow	USGPM	3/64	3/64	5/64	5/64	5/64	5/64
Normal Flow	USGPM	1 - 20	1 - 20	2 - 30	2 - 30	2 - 30	3 - 50
Low Flow	USGPM	1/8	1/8	1/2	1/2	1/2	3/4
Extreme High Flow (Intermittent)	USGPM	25	28	35	35	35	65
Maximum Working Pressure	P.S.I.	150	150	150	150	150	150
Maximum Temperature	Deg. F	122	122	122	122	122	122
Length	Inches	7 1/2	7 1/2	7 1/2	9	9	10 3/4
Length with Couplings	Inches	12 1/2	12 1/2	12 1/2	14 1/2	14 1/2	16 1/2
Height	Inches	4 3/4	4 3/4	5 1/2	5 1/2	5 1/2	7
Weight	Pounds	5	5	7	7.2	7.2	13

MODEL		PPD08	PPD09	PPD09**T	PPD11	PPD12	PPD12**T
SIZE		1-1/2" Female Threads	1-1/2" Flanged	1-1/2" Flanged w/ Test Port	2" Female Threads	2" Flanged	2" Flanged w/ Test Port
High Flow Rate	USGPM	100	100	100	160	160	160
Continuous Flow	USGPM	50	50	50	80	80	80
Starting Flow	USGPM	1/2	1/2	1/2	3/4	3/4	3/4
Normal Flow	USGPM	5-100	5-100	5-100	8-160	8-160	8-160
Low Flow	USGPM	1 1/2	1 1/2	1 1/2	2	2	2
Extreme High Flow (Intermittent)	USGPM	120	120	120	170	170	170
Maximum Working Pressure	P.S.I.	150	150	150	150	150	150
Maximum Temperature	Deg. F	122	122	122	122	122	122
Length	Inches	12 5/8	13	13	15 1/4	17	17
Length with Couplings	Inches	-	-	-	-	-	-
Height	Inches	7 3/4	7 3/4	7 3/4	8	8	8
Weight	Pounds	25	26	26	31	35	35